



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,953	11/21/2003	Christina Ann Lacombe	130802	3520
6147 7590 03/18/2009 GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 NISKAYUNA, NY 12309				
EXAMINER FIELDS, BENJAMIN S				
ART UNIT 3692		PAPER NUMBER		
NOTIFICATION DATE 03/18/2009		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ldocket@crd.ge.com
rosssr@crd.ge.com
parkskl@crd.ge.com

Office Action Summary

Application No.

10/719,953

Applicant(s)

LACOMB ET AL.

Examiner

BENJAMIN S. FIELDS

Art Unit

3692

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 21 November 2003.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-34 of **this** application conflict with Claims 1-13 and 23-30 of Application No. 10/890,836.
2. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claims 1-34 are provisionally rejected as claiming the same inventions as that of copending Application No. 10/890,836. This is a provisional non-statutory obviousness-type double patenting rejection since the conflicting claims have not in fact been patented. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim the same if not very similar inventive concept.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims **15-25** and **33-34** are rejected under 35 U.S.C. 101 because the claimed invention is not directed to a secondary statutory subject matter/class.

Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to a machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the other statutory class (the thing or product)

to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps fail the first prong of the new Federal Circuit decision since they are not tied to a machine and can be performed without the use of a particular machine. In this particular case, Claims **15-25** and **33-34** are not tied to another statutory class, such as any hardware. Thus, it is unclear as to whether or not the claims are mere processes that involve purely human labor.

The mere recitation of the machine in the preamble with an absence of a machine in the body of the claim fails to make the claim statutory under 35 USC 101. Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.: http://iplaw.bna.com/iplw/5000/split_display.adp?fedfid=10988734&vname=ippqcases2&wsn=500826000&searchid=6198805&doctypeid=1&type=court&mode=doc&split=0&scm=5000&pg=0.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to Claims 1-14: Claims 1-14 are comprised of essential element system structural steps. A system or an apparatus claim should always claim the structure or the hardware that performs the function. Applicant's claimed limitations consist of hardware and software according to the specification. See MPEP § 2172.01.

Claims 1-14 recite a system for detecting behavioral patterns related to a business comprising various features. The body of the claim, however, is not commensurate with an understood definition of a system or apparatus. More specifically, as an example, recited elements such as an "analytics engine" fail to provide any structure and merely recite functionally descriptive material and abstract ideas. It is thereby unclear what structure the system is comprised of and how the various features combine to form a system or apparatus.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over James (US PG Pub. No. 2004/0172409), [hereinafter James] in view of Yahil et al. (US Pat. No. 7,328,182), [hereinafter Yahil].

Referring to Claim 1: James discusses a system for detecting [behavioral] patterns related to the financial health of a business entity, comprising: at least one data collection application configured to extract financial data and business data that relates to the business entity from at least one data source, wherein the financial data comprises at least one of quantitative financial data and qualitative financial data, and wherein the business data comprises at least one of quantitative business data and qualitative business data (James: Abstract; Figures 1, 3-7; Page 1, Paragraphs 0006-0010); and an analytics engine configured to perform analytics on the financial data and business data, wherein the analytics engine is configured to: analyze the quantitative financial data and quantitative business data using a financial anomaly detection technique to detect the [behavioral] patterns associated with the business entity (James: Figures 1, 3-7, 40-48; Page 1, Paragraphs 0006-0010; Page 4, Paragraph 0077-Page 5, Paragraph 0094).

James, however, does not expressly discuss the term “behavioral” in relation to the patterns related to the financial health of a business entity.

Yahil, in a similar environment, discloses the term “behavioral” in relation to the patterns related to the financial health of a business entity (Yahil: Column 3, Line 31-Column 4, Line 28; Claims).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the method and system of James for analyzing data with the features of Yahil for a system and method for prediction of behavior in financial systems for the

purpose of minimizing the complexity of forecasting the behavior of a business entity (Yahil: Page 4, Paragraphs 0048-0049).

Referring to Claim 2: James shows a system, wherein the analytics engine is further configured to analyze the qualitative financial data and qualitative business data using the financial anomaly detection technique to detect the [behavioral] patterns associated with the business entity (James: Figures 1, 3-7, 40-48; Claims).

Referring to Claim 3: James discusses a system, wherein the analytics engine is further configured to fuse the analyzed quantitative financial data and quantitative business data with the analyzed qualitative financial data and qualitative business data to detect the [behavioral] patterns associated with the business entity (James: Page 4, Paragraph 0077-Page 5, Paragraph 0094).

Referring to Claim 4: James teaches a system, wherein the data source comprises at least one of quantitative business and financial information sources and qualitative business and financial information sources (James: Figures 1, 40-48; Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 5: James discloses a system, wherein the [behavioral] patterns comprises at least one of likelihood of fraud, financial credit or investment risk and good credit or investment prospect associated with the business entity (James: Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 6: James shows a system, wherein the data collection application comprises at least one of quantitative data collection applications and

qualitative data collection applications (James: Figures 1, 40-48; Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 7: James discusses a system, wherein the quantitative data collection applications comprise commercial database data extraction tools and financial data extraction tools (James: Figures 1, 40-48; Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 8: James teaches a system, wherein the financial data extraction tools are configured to extract financial data and financial measures from the quantitative financial data and quantitative business data (James: Figures 1, 40-48; Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140; Claims).

Referring to Claim 9: James discloses a system, wherein the qualitative data collection applications comprise event detection and natural language processing tools (James: Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 10: James shows a system, wherein the event detection and natural language processing tools are configured to extract keywords and text patterns from the qualitative financial data and qualitative business data (James: Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140).

Referring to Claim 11: James teaches a system, wherein the financial anomaly detection technique comprises at least one of outlier detection, trend analysis,

correlation analysis, regression and factor and cluster analysis (James: See Figures; Claims).

Referring to Claim 12: James discusses a system, wherein the financial anomaly detection technique detects the [behavioral] patterns based on an analysis of at least one of past financial measures related to the business entity, past financial measures related to at least one industrial segment associated with the business entity and current financial measures related to at least one industrial segment associated with the business entity (James: Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140; Page 10, Paragraph 0196-Page 11, Paragraph 0218).

Referring to Claim 13: James shows a system, wherein the analytics engine is further configured to use a reasoning methodology to detect the [behavioral] patterns related to the business entity, and wherein the reasoning methodology is based on temporal relationships, interactions and confidence levels associated with the business data and financial data (James: Page 6, Paragraph 0017-Page 7, Paragraph 0140; Page 10, Paragraph 0196-Page 11, Paragraph 0218; Claims).

Referring to Claim 14: James discloses a system, wherein the analytics engine is further configured to generate an alert signal, wherein the alert signal comprises at least one of a visual representation and textual representation of the detected [behavioral] patterns (James: See Figures; Page 4, Paragraph 0077-Page 5, Paragraph 0094; Page 6, Paragraph 0017-Page 7, Paragraph 0140; Page 10, Paragraph 0196-Page 11, Paragraph 0218; Claims).

Referring to Claims 15-25: Claims 15-25 are the method for the system of Claims 1-14. As such, Claims 15-25 are rejected under the same basis as are Claims 1-14 as mentioned supra.

Referring to Claims 26-32: Claims 26-32 are directed toward a computer-readable medium storing computer instructions for the system of Claims 1-14 and the method of Claims 15-25. As such, Claims 26-32 are rejected under the same basis as are Claims 1-14 as mentioned supra.

Referring to Claims 33-34: Claims 33-34 parallel the limitations of Claims 1. As such, Claims 33-34 are rejected under the same basis as is Claim 1 as mentioned supra.

Examiner Note

9. **The Examiner has pointed out particular reference(s) contained in the prior art of record** within the body of this action for convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. **Applicant**, in preparing the response, should fully consider the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Conclusion

10. Any inquiry concerning this communication should be directed to BENJAMIN S. FIELDS at telephone number 571.272.9734. The examiner can normally be reached MONDAY THRU FRI between the hours of 9AM and 7PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KAMBIZ ABDI can be reached at 571.272.6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin S. Fields
13 March 2009

/Harish T Dass/
Primary Examiner, Art Unit 3692